measured 22 mm. $\times$ 10 mm., and was divided into 3 loculi by cicatricial bands running from above downwards.

Caocci's case was one of a voluminous cyst of Krause's gland resulting from occlusion of the duct of the gland due to trachoma and distended almost entirely by haemorrhage into it.

Michail's patient, a woman aged 26 years, suffered from bilateral tuberculosis of the conjunctiva and, during a course of 3 years under observation, developed bilateral cysts of Krause's glands and complete ankyloblepharon.

Leslie Paton removed a cyst of Krause's gland from a sergeant aged 32 years. The sergeant had been operated on for a chalazion some time previously and Paton found a cicatrix in the conjunctiva covering the cyst.

REFERENCES

- Contino, A.—Grossa Cisti della ghiandola di Krause con particolare reperto istologico. *Clin. Ocul.*, Vol. VII, pp. 2509-2517, 1906.
 Caocci, G.—*Rass. Ital. d'Ottal.*, Vol. I, 1932, abstracted in *Amer. Jl. of Ophthalm.*, Vol. XVI, p. 900, 1933.
 Michail, D.—Ankylosing tuberculosis of the conjunctiva with large bilateral cysts of Krause's glands and cystic degeneration of Meibomian glands. *Cluj. Med.*, Vol. X, pp. 273-276. Abstracted *Zentralbl. f. d. ges. Ophthalm.*, Vol. XXIV, p. 230, 1930-1931.
 Paton, L.—Cyst of Krause's gland. *Trans. Ophthalm. Soc. U.K.*, Vol. XXXIX, p. 129, 1919.

PAPILLOMATA AND OTHER TUMOURS OF THE LIDS AND THEIR TREATMENT WITH THE ELECTROLYSIS NEEDLE

BY

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PAPILLOMATA of the lids occur frequently in middle-aged and elderly people of both sexes. They are more common on the lower lids. The pedunculated and sessile varieties occurring on the skin of the lids have been well described in most text-books, but very little has been said about the superficial wart-like processes situated upon the intermarginal area of the lids.

This variety of papillomata is seen in various forms: (1) A raised reddish tumour stretching from the ciliary margin to the internal margin of the lid; (2) marginal papillomata; (3) a flat papilloma growing from the skin of the lid, involving the ciliary margin and a portion of the intermarginal area. Most of these papillomata are flat and of the sessile variety.

One also sees small pointing papillomata growing from the ciliary margin. The surgical removal of these tumours is often very difficult, and involves splitting the lid, careful dissection and suturing of cut surfaces. The lid margin is often left distorted, scarred and notched. Entropion may follow the operation.

The use of the electrolysis needle in removal of these tumours is mentioned in several text-books of ophthalmology, but its technique is not described. With the aid of the electrolysis needle, the difficult operation is converted into one of great simplicity. The galvanic current is required, and it can be obtained from a multostat or pantostat run off from the mains, or a box with dry batteries made up by various firms and used by ophthalmic surgeons for electrolysis in epilation of lashes. The same machine is being used nowadays for catholysis treatment of detachment of the retina. The positive flat electrode is attached to the patient's arm covered with a moistened pad of lint. The negative electrode is used for the electrolysis, a steel or platinum needle inserted in a special electric needle holder serves as the active electrode.

The curved or straight steel needle is preferable to the pliable platinum needle. Local anaesthesia is obtained by injecting novocaine and adrenalin subcutaneously near the lid margin.

The current necessary for destruction of the base of the tumour is 3-4 milliampères.

The needle is inserted through the base of the tumour, and transfixes it, the current is turned on and bubbling appears. After a few seconds, the needle is withdrawn, and the tumour is transfixed at right angles to the first transfixion.

The procedure is repeated in several directions through the base of the papilloma. The needle is kept in position at each transfixion for only a few seconds. The papilloma could be left to fall off, but it is preferable to snip it off with scissors above the cauterised base. The whole operation is bloodless.

A collodion dressing is applied to the raw area. At the end of a week, the lid is healed, and no scarring remains.

One word of warning is necessary. If the needle is left in too long or the current used is too strong the surrounding healthy tissue will be cauterized, and scarring of the lid may follow. I have recently treated, at the Royal Eye Hospital, London, fifty consecutive cases of papillomata of the lids with the electrolysis needle with very good results.

The same method of treatment is used for cysts of glands of Moll at the internal margin of the lid. Small sebaceous cysts of the skin of the lid can be transfixed with the electrolysis needle in several directions and cut off. No suturing is required. Xanthomata are also amenable to the same treatment. Calcareous concretions on the conjunctival surface of the lids are at times very difficult to pick

out with a needle, a great deal of bleeding takes place, and the concretion is obscured from view. The electrolysis needle is extremely useful in giving a bloodless field of operation; the point of the needle is inserted under the concretion, and, in most cases, the concretion is easily dislodged. Granulomata of the conjunctiva following squint operations or excision of the eyeball can be easily cauterised at the base with the electrolysis needle and then snipped off; again the operation is practically bloodless. The electrolysis needle acts as a cautery, and prevents recurrence of granulation tissue.

Naevi of the skin of the lids are destroyed by inserting the electrolysis needle into one or two venules: coagulation follows rapidly.

If the electrolysis needle is used judiciously in the treatment of all these conditions (*i.e.*, weak current and short applications), no scarring of tissue should follow.

The method described above is used frequently by dermatologists, and this paper is an attempt to indicate its wider application in ophthalmology.

THE DIFFERENTIAL DIAGNOSIS OF ORBITAL GUMMA

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THE differential diagnosis of retrobulbar tumours of the orbit is often very difficult. Frequently only an exophthalmos and secondary changes in the eyeball suggest the presence, deep in the orbit, of a pathological process which cannot be detected by inspection, or by palpation, or by X-rays. In such cases any auxiliary means of diagnosis which may help to clarify the question as to whether there is a benign or a malignant tumour, or a chronic inflammatory process, may certainly be welcomed. The piezometer, an apparatus, by which the displaceability of the eyeball into the orbit can be measured, is such an auxiliary aid to diagnosis. Meller repeatedly drew attention to this clinical method in the "Zeitschrift für Augenheilkunde," in 1933, and reported that Gutmann's piezometer had been used to great advantage for many years in all cases of retrobulbar tumours in the Vienna Clinic. I refer the reader to Gutmann's works (*e.g.*, Transactions of the Ophthalmological Society of the United Kingdom, 1934) for a detailed